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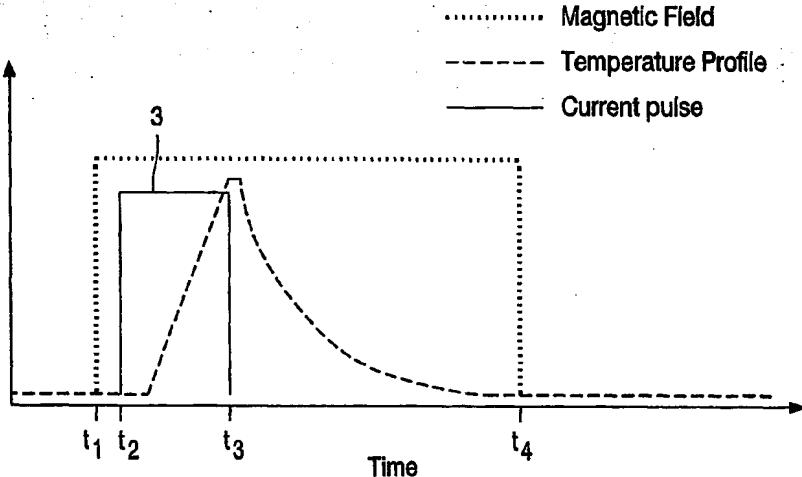
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(54) Title: METHOD OF MANUFACTURING A DEVICE WITH A MAGNETIC LAYER-STRUCTURE



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(57) **Abstract:** A method of manufacturing a device with a magnetic layer-structure is disclosed, the method comprising the steps of: - forming the magnetic layer-structure (2), - heating the magnetic layer-structure with an electric current, wherein the electric current is a pulse (3) having a duration such that no substantial heat transfer from the layer-structure to the environment (4) of the layer-structure takes place, so that the temperature of said environment before and after the current pulse is substantially the same. Heat is substantially dissipated in the layer-structure. The method therefore allows the selection of physical processes in the layer-structure in order to optimize the magnetic or electrical characteristic of the magnetoresistive device, without disturbing the environment such as neighboring devices. The method can advantageously be used to set different magnetization directions (9, 10) in the bias layers (5,7) of different magnetoresistive devices (12,13,14,15) arranged in a Wheatstone bridge configuration (16), or to reduce offset in the output characteristic of said Wheatstone bridge.

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